ORIGINAL



1	BEFORE THE ARIZONA CORPORAT ATIZONA CORPORAT	ION COMMISSION/ (1)
2		ssion
3	WILLIAM A. MUNDELL DOCKETED	2002 NAR 29 A 9: 46
4	CHAIRMAN MAR 9 G 2002	E. C. Con 7 1 7-4 1 15 67 0
5	JIM IRVIN MAR 3 9 2002	a the property of the second of the second
6	COMMISSIONER DOCKETED BY	
7	MARC SPITZER	
8	COMMISSIONER	
9		
10	IN THE MATTER OF THE GENERIC)	DOCKET NO. E-00000A-02-0051
11	PROCEEDINGS CONCERNING ELECTRIC)	
12	RESTRUCTURING ISSUES	
13		•
14	,	DOCKET NO. E-01345A-01-0822
15	SERVICE COMPANY'S REQUEST FOR)	
16	VARIANCE OF CERTAIN REQUIREMENTS)	
17	OF A.A.C. R14-2-1606	
18		
19		DOCKET NO. E-00000A-01-0630
20	PROCEEDING CONCERNING THE)	
21	ARIZONA INDEPENDENT SCHEDULING)	
22	ADMINISTRATOR	
23		
24	· · · · · · · · · · · · · · · · · · ·	DOCKET NO. E-01933A-02-0069
25	POWER COMPANY'S APPLICATION FOR)	
26	A VARIANCE OF CERTAIN ELECTRIC)	
27	COMPETITION RULES COMPLIANCE)	
28	DATES)	
29		·
30		DOCKET NO. E-01933A-98-0471
31	OF TUCSON ELECTRIC POWER COMPANY)	
32	FOR APPROVAL OF ITS STRANDED COST)	
33	RECOVERY)	
34		
35		PRE-FILED DIRECT
36		TESTIMONY AND EXHIBITS
37		OF ARIZONANS FOR
38		ELECTRIC CHOICE
39	A A	AND COMPETITION
40 41		
41	Asimonous for Electric Chairman Communication	ECC) hambar and in its in Di
42	Arizonans for Electric Choice and Competition (A	AECC) nereby submits its Direct
43	Testimony and Exhibits concerning the APS matter in the	e above-captioned proceedings.

•			
1	DECDECTELLIAGII	MITTED ALS 2041 A. C. C. M. A.	2002
I	RESPECTFULLY SUI	BMITTED this 29th day of March,	2002.
2			
2			
2		Chl T. Stern	
3	€	my remin	
		CL 1 TO St	
4		Charles T. Stevens	51
5		Attorney for Arizonans for	Electric Choice
6		and Competition	
7	·	245 W. Roosevelt	
8		Phoenix, AZ 85003	
9		(602) 229-1010	
10			
11			
12			
13	Original and ten (10) copies of the foregoing		
14	filed this 29th day of March, 2002, with:		
15			
16	Docket Control Division		
17	Arizona Corporation Commission		
18	1200 West Washington Street		
19	Phoenix, Arizona 85007		
20			
21			
22	Copies of the foregoing were mailed/delivered	this 29th day of March 2002 to th	e attached
23	service list.	• · · · · · · · · · · · · · · · · · · ·	
24	V.		

1	TABLE OF CONTEN	NTS	
2	Direct Testimony of Kevin C	. Higgins	
3			
4	Introduction	•••••	1
5	Competitive bidding requirement	• • • • • • • • • • • • • • • • • • • •	5
6	Power Purchase Agreement	•••••	13
7	Direct access issues		17
8			
9	Exhibits		
10			
11	KCH-1	Vit	tae
12	KCH-2Proposed Gener	ation in Arizo	na

DIDECT	THE CHERT ACCRET	OF KEVIN C	THEORING
DIRECT	TESTIMONY (OH KHIVIN C	. HIGGGINS

1

18

2		
3	Q.	Please state your name and business address.
4	A.	Kevin C. Higgins, 39 Market Street, Suite 200, Salt Lake City, Utah,
5		84101.
6	Q.	By whom are you employed and in what capacity?
7	A.	I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies
8		is a private consulting firm specializing in economic and policy analysis
9		applicable to energy production, transportation, and consumption.
10	Q.	On whose behalf are you testifying in this proceeding?
10 11	Q. A.	On whose behalf are you testifying in this proceeding? My testimony is being sponsored by Arizonans for Electric Choice and
11		My testimony is being sponsored by Arizonans for Electric Choice and
11 12		My testimony is being sponsored by Arizonans for Electric Choice and Competition ("AECC"). AECC is a coalition of Arizona electricity customers in
11 12 13		My testimony is being sponsored by Arizonans for Electric Choice and Competition ("AECC"). AECC is a coalition of Arizona electricity customers in favor of electric competition. AECC was an active participant in the public
11 12 13 14		My testimony is being sponsored by Arizonans for Electric Choice and Competition ("AECC"). AECC is a coalition of Arizona electricity customers in favor of electric competition. AECC was an active participant in the public process that led to the development of the Commission's Electric Competition

Q. Were you personally involved in the negotiations that resulted in the APS and TEP settlement agreements?

implementation of direct access service, and standard offer rate reductions.

- 21 A. Yes, I was closely involved in both series of negotiations on behalf of 22 AECC.
- 23 Q. Have you previously testified before this Commission?

Yes. I have testified in a number of proceedings, including the generic proceeding on retail electric competition (1998)¹ and the hearings on the APS and TEP settlement agreements (1999).²

Q. Please describe your qualifications.

A.

A.

My academic background is in economics, and I have completed all course work and examinations toward the Ph.D. in Economics at the University of Utah, and have served on the adjunct faculties of both the University of Utah and Westminster College, teaching both undergraduate and graduate courses in economics. I joined Energy Strategies in 1995, where I assist private and public sector clients in the areas of energy-related economic and policy analysis, including evaluation of electric and gas utility rate matters. In addition to my prior testimony before the Arizona Corporation Commission, I have testified numerous times on the subjects of electric utility cost-of-service, rate design, and industry restructuring before state utility regulators in Utah, Nevada, Oregon, Washington, Wyoming, Georgia, and New York.

Prior to joining Energy Strategies, I held policy positions in state and local government. From 1983 to 1990, I was economist, then assistant director, for the Utah Energy Office, where I testified regularly before the Utah Public Service Commission on utility policy matters. From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County Commission, one of the larger municipal governments in the western U.S., where I was responsible for development and implementation of a broad spectrum of public policy.

¹ Docket No. RE-00000C-94-0165.

A more detailed description of my qualifications is contained in Exhibit KCH-1, attached to this testimony.

Q. What is the purpose of your testimony in this proceeding?

A.

Α.

I have been asked to evaluate the two principal requests APS is making in this proceeding: (1) APS's request to be granted a variance from the provision in the Electric Competition Rules that requires investor-owned utility distribution companies ("UDCs") to acquire at least 50 percent of the generation needed for standard offer service from competitive bid; and (2) the Company's request for approval of a Power Purchase Agreement ("PPA") with APS' affiliate Pinnacle West Capital Corporation ("PWCC") to provide generation for standard offer service (as a replacement for the competitive bid).

Q. What do you conclude in your testimony?

With respect to the requests being made by APS, I have concluded that:

(1) It is appropriate for the Commission to review whether the minimum bid requirement is set at a level that best promotes the public interest. Upon the Commission either (a) reconfirming that 50 percent is the appropriate minimum level of competitive bidding requirement, or (b) determining that an alternative level is more appropriate, APS should be required to comply fully with the bidding provisions of the Competition Rules. My review of publicly-available information concerning new power plants under construction in Arizona leads me to conclude that APS' proposal to limit the bidding requirement to 270 MW in 2003, with an additional 270 MW each year thereafter, is, on its face, overly-

² Docket Nos. RE-00000C-94-0165, E-01345A-98-0473, E-01933A-97-0773, E-01345A-98-0471, and E-01933A-97-0772.

restrictive. I further recommend that Pinnacle West's new units – West Phoenix and Red Hawk – not be given a competitive "free pass" (via inclusion in the PPA) but should compete for APS's business. Removing these units from "Dedicated Units" in the proposed PPA provides an opportunity for at least 1680 MW to be competitively bid for delivery in 2004.

(2) To the extent that it is necessary for APS to procure generation resources to serve standard offer load *beyond* the amount of the competitive bid, a power purchase contract with an affiliate should be eligible for consideration; however, the PPA proposed by APS would need to be significantly modified before it could be construed to be a reasonable option for customers.

In addition, I have concluded that the APS request for a variance is fundamentally concerned with the procurement of generation resources for *standard offer* service. In contrast, the rights of retail customers to take *direct access* service lie entirely outside the scope of the APS request. In hearing, and potentially acting on, the APS request, the Commission should not take action that would negatively impact the rights of customers to take direct access service.

Moreover, should the Commission approve any version of an APS power purchase contract, it should be made clear that such contract does not give rise to any new stranded cost claims, as all stranded cost claims have been permanently resolved in the APS Settlement Agreement.³

³ The Electric Competition Rules state that "the Commission shall limit the application of [Stranded Cost] charges to a specified time period." RE2-1607(E)(8). [Emphasis added] The specified time period applicable to APS is set forth in the APS Settlement Agreement, Art. III. I note that in its Request for Variance, APS correctly does not seek potential stranded cost treatment for its proposed PPA. Further, when asked whether the Company's position regarding stranded cost recovery would change if the PPA were approved, the Company's reply was limited to restating the stranded cost recovery provided in the APS Settlement Agreement. [APS Data Response to AECC, 1.4]

Competitive bidding requirement

A.

2	Q.	What is your understanding of the provision in the Competition Rules tha
3		requires competitive bidding?

A. This provision was adopted in the Commission's Order issued September 29, 1999. It appears as R14-2-1606(B) of the Electric Competition Rules, which states:

"After January 1, 2001, power purchased by an investor owned Utility Distribution Company for Standard Offer Service shall be acquired from the competitive market through prudent, arm's length transactions, and with at least 50% through a competitive bid process."

In essence, the provision requires that *all* power for standard offer service is to be procured from the competitive market, with the proviso that at least half of this power must be acquired from some type of competitive bid process.

The effective date of this provision was delayed two years in the APS Settlement Agreement, which was subsequently approved by the Commission.

Thus, the provision's effective date for APS is January 1, 2003.

Q. What is your understanding of the purpose of this provision?

At the time of its adoption, this provision was advanced as a means of ensuring that, in the future, power procured for standard offer customers would have the advantage of being competitively priced. The specific requirement that 50 percent must be procured from a competitive bid was something of a compromise fashioned by the Commission during its September 21, 1999 Special

Open Meeting on the Electric Competition Rules.⁴ Some parties advocated that *all* procurement for standard offer customers should be competitively bid; others advocated language that required such procurement to be made from the "competitive market," but without a bid requirement per se. At that time, the existing language in the Rules and the language in the Hearing Officer's recommended order required all purchases for standard offer service to be made from the competitive market, but without a specific bid requirement.⁵

The general notion behind this provision – both with respect to the bidding requirement as well as the overall requirement to purchase in the competitive market – was that competitive wholesale market prices were more likely to be less expensive than power purchased through a (non-arm's-length) contract from an affiliate of the UDC. Consequently, the Commission believed that requiring the UDC to purchase from the competitive market would result in lower retail prices for standard offer customers.

Q. What is the basis for APS seeking to be largely exempt from this provision?

A. In its request for variance, APS asserts that application of the bidding provision would have the opposite effect of what was intended, namely that it would result in higher prices to standard offer customers than would occur under a long-term contract with APS's affiliate.

Q. What is your overall assessment of APS's variance request?

⁴ See Minutes of Special Open Meeting of the Arizona Corporation Commission, Sept. 21, 1999, pp. 19-20. I was in attendance during the special open meeting.

⁵ RE-00000C-94-0165, Recommended Order, August 26, 1999, Appendix A, p. 16, and Appendix B, pp. 27-28.

There are at least two discrete facets to the Company's request. The first is whether any divergence from the current Rule is warranted. The second is, in the event the requested variance from the current Rule were granted, whether the PPA proposed by APS is just and reasonable and in the public interest. This latter issue will be addressed in the next section of my testimony, but I will indicate here that I believe the proposed PPA would require significant modification before it would be a reasonable option for customers, and should only be implemented in conjunction with an appropriate bidding requirement.

As to whether any divergence from the Rule is warranted, I believe that APS has raised an issue that should be reviewed by the Commission, namely whether 50 percent is the most appropriate level for the minimum bid requirement. APS asserts that 50 percent is too high and will result in unnecessarily high prices and diminished reliability for standard offer customers. To make its case, APS cites the wholesale price volatility experienced in the western U.S. during 2000-01 as evidence of the potential for price risk, and asserts that there will not be enough merchant generation on line in time and in the right locations to make a 50 percent bidding requirement cost-effective for ratepayers.

As an alternative, APS proposes reducing the bidding requirement to 270 MW in 2003, to be increased by 270 MW each year until 2008, at which time it would be expected to represent some 23 percent of the generation requirement to meet APS's peak load.⁶

A.

⁶ APS Request for a Partial Variance, pp. 9-10.

In my view, APS has raised a question that should be reviewed: whether 50 percent is an appropriate minimum bidding level for 2003 (and subsequent years); however, the Company has not made a convincing case that cutting this down initially by over 90 percent – to only 270 MW – is at all warranted.

What factors should be considered in determining whether retaining the 50 percent minimum bid requirement is in the public interest?

The chief factor to be considered is whether a competitive bid of that magnitude is likely to result in UDC power purchase prices that will be beneficial to standard offer customers. The answer to this question will turn, in part, on the likely availability of uncommitted generation and the ability of that generation to be delivered to APS retail customers. According to APS, fulfillment of the 50 percent mandate would mean purchasing through competitive bid over 3000 MW of generation in 2003. To achieve competitive prices, bidders should face a palpable risk that "above-market" offers will not make the cut. Consequently, for bidding to be viable, it would require that an amount of available and deliverable generation sufficiently in excess of 3000 MW to give each bidder the incentive to bid a competitive price.

Q. Have you conducted a study of the uncommitted and deliverable generation?

I have not conducted such a study, although I have reviewed publicly-available information on the development of new generation resources in and around Arizona. I do not have sufficient information either to confirm or refute that a 50 percent bidding requirement is in the public interest, but I can reasonably

A.

Q.

A.

⁷ APS Request for a Partial Variance, p. 3.

conclude that reducing the competitive bid requirement to 270 MW in 2003 as proposed by APS is overly restrictive.

Q. Why do you conclude that 270 MW is overly restrictive?

A.

Publicly-available information indicates that 1830 MW of new generation came on line in Arizona in 2001, and another 3130 MW is under construction and scheduled to be on line in 2002 (excluding SRP). Further, an additional 2790 MW is approved, under construction, and scheduled to come on line in 2003. (A summary of plant development schedules is shown in Exhibit KCH-2.) These plants are owned by a number of different parties, offering the prospect of competitive diversity. Even if there is some attrition from this group, and even if Mr. Davis is correct in his assertion that it is not possible to schedule all this generation into APS load centers at the same time, it still appears that the availability of generation to participate in a competitive bidding process will be well beyond what APS has proposed – certainly with respect to 2004 and beyond.

Moreover, I disagree with at least part of the rationale offered by APS in defending its proposal. In a data response, APS indicates that its witness Dr.

Landon relied upon 1998 testimony concerning the Phoenix load pocket in coming to his conclusion that independent power producers would be unable to provide power for APS standard offer service in amounts equal to 50 percent of the load. I take exception to this rationale because the load pocket issue has already been separated out and given special treatment in both the development of the Arizona ISA protocols (which govern the treatment of the load pocket issue

⁸ APS Response to Arizona Competitive Power Alliance, No. 1.32

until an RTO is in place)⁹ and the proposed WestConnect RTO filing presently before FERC.¹⁰ In both cases, there is a clear set of procedures for addressing the Phoenix load pocket that can be very cleanly distinguished from the competitive bid requirement. Moreover, because the Phoenix load pocket problem is present for only several hundred hours per year, it is difficult to see how that could present a problem in obtaining 50 percent of the *energy* required for standard offer service over any appreciable period of time. Finally, to the extent that the Phoenix load pocket was truly an issue at all in this matter, it would be far simpler (and less controversial) to simply amend the Rule to exempt from the bidding requirement any generation needed to meet load pocket requirements during must-run conditions.

Q.

A.

Why do you believe it is important for APS to comply with the competitive bidding requirement to the maximum extent consistent with the public interest?

There are two reasons. The first is that I believe it is important for standard offer customers to receive the benefit of competitive wholesale pricing – and this can be achieved so long as the procurement model is structured and sized properly. The second reason is that the Commission has already sent an important signal to the generation development community when it established the 50 percent bidding requirement back in September 1999. While, in my view, the interest of Arizona customers warrants the Commission's review of the level of

⁹ See Arizona Independent Scheduling Administrator Protocols Manual, Sec. VIII, "Must-Run Generation."

the bidding requirement, it is also important to recognize that a very significant amount of generation has been and is being constructed in Arizona – at the developers' risk. While it is not possible for me to determine the extent to which any of these developers have relied upon the Commission's bidding requirement in making their investment decisions, the fact remains that the requirement has been on the books for over two years and the competitive generation development that Arizona deliberately sought is indeed occurring. As a matter of public policy, it is important to be mindful of the existing framework and the parameters the Commission has set; any consideration the Commission gives to making changes in the bidding requirement should give proper weight to the reasonable expectations that have been established. Neighboring states whose energy policies have been whipsawed about have suffered serious negative consequences. For these reasons, I believe it is important, that once the Commission has reconfirmed or re-determined the appropriate minimum bid level, standard offer providers be obliged to fully comply with it.

1

2

3

4

5

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

A.

Q. What do you mean when you state that procurement model should be "structured properly"?

By "structured properly" I am referring to the design of the bidding program. The Competition Rules offer no specificity as to design, from which I infer that the standard offer provider would have the latitude to design the program to maximize its value to standard offer customers.

¹⁰ See treatment of "Local Generation Resource Service" in FERC Docket Nos. RT02-1-000 and EL02-9-000, "Order No. 2000 Compliance Filing and Declaratory Order Petition," filed by WestConnect RTO, LLC, Tariff Appendix D, *inter alia*.

Q. What are some considerations in designing the bidding program to maximize its value to standard offer customers?

For example, for any sizable total amount to be bid, it would be unwise to bid it out all at once for a single period of time (e.g., one year). Instead, one would expect the standard offer provider to put together a portfolio of purchases for differing amounts over differing time periods (e.g., one month to several years). The bidding program should be designed to capture this needed flexibility on the part of the standard offer provider.

Another area in which design is relevant is the benchmark by which compliance with the Rule is measured. The language in the Rule provides that 50 percent of the "power" purchased by the UDC for standard offer service must be acquired through competitive bid. It leaves open to interpretation whether this means 50 percent of the "energy" (and if so, measured over what time period), 50 percent of the "capacity," or 50 percent of the energy and capacity. APS indicates that the Company already purchases some 1200 MW to meet summer demands. 11 It is not evident why this purchase could not be structured to conform to the bidding requirement.

Q. In the light of the issues you have discussed, what is your recommendation to the Commission concerning the bidding requirement?

The Commission should use the evidentiary record of this case, including testimony from generators regarding the availability and deliverability of their output, as well as their interests in the bidding program, to determine whether

A.

A.

¹¹ APS Data Response to Staff, 1.

	there will be sufficient available and deliverable generation to meet the 50 percent
	bidding requirement in a manner likely to benefit standard offer customers. If the
	answer is affirmative, then APS should be required to comply with the bidding
	requirement in the Rule. If the Commission determines that another minimum
	bidding level is more appropriate, then APS should be required to comply with
	the revised level. While I do not have sufficient information to recommend a
	specific minimum bidding level to the Commission, publicly-available
	information concerning new generation development in the region indicates that
	the minimum bid amount should be well above the 270 MW proposed by APS.
	Finally, if as I recommend below, Pinnacle West's new units - West Phoenix and
	Red Hawk – are required to compete for APS's business, it would provide an
	opportunity for at least 1680 MW to be competitively bid for delivery in 2004.
Powe	er Purchase Agreement
Q.	Have you reviewed the PPA proposed by APS?
A.	Yes, I have.
Q.	Do you recommend its approval by the Commission?
A.	No, I do not.
Q.	Why do you oppose its approval?
A.	I believe the scope of the PPA is overly broad, the term for the PPA as
	proposed is too long, and a number of the pricing features do not reasonably
	balance the best interests of retail customers with those of Pinnacle West

Q.

generation to serve standard offer customers?

Are you opposed to any type of long-term affiliate contract to provide

No, I am not. I believe it may be possible to craft a long-term contract that benefits both customers and the utility, but this proposal does not accomplish that.

What aspect of the proposed PPA is "overly-broad"?

A.

Q.

A.

The proposal crowds out the ability of new generation to compete with Pinnacle West to supply generation to serve APS's standard offer load. As I discussed in the previous section, APS's proposal to severely limit the amount of generation procured by competitive bid is, on its face, overly restrictive. The large amount of Pinnacle West generation covered by the PPA is the flip side of that restriction. Indeed, it goes beyond displacing the competitive bid requirement – it covers/displaces the *remaining* 50 percent of generation that is supposed to be procured from the competitive market through prudent, arm's length transactions (but not necessarily from competitive bid).

Another sense in which the proposed PPA is overly-broad is its inclusion of Pinnacle West's newest units, West Phoenix and Redhawk, which together total around 1680 MW. I do not see why these new units should be given a competitive "free pass." Under the ground rules adopted by the Commission, these units should have to compete with other suppliers to provide the resources needed for the UDC's standard offer load. The one limited exception is that some of West Phoenix's output may be covered by the Arizona ISA's and WestConnect's "must-run" protocols (activated during load pocket conditions). But this exception should be addressed on its own merit and not blended into a much larger PPA.

Q. What are your concerns about the term of the proposed agreement?

The initial term is 15 years, renewable at either party's option in three additional 5-year increments. This is an extremely long term, and if approved, stakeholders would have to live with the deal for a generation (no pun intended). Of course, the proposed term is not unlike what occurs under traditional regulation when plants are added to rate base, but traditional regulation provides for a much greater degree of periodic cost oversight and approval on the part of the Commission. My concern about the proposed term is related, in part, to the concern I have just registered about the proposed scope: it is an extremely large amount of generation being purchased for an extremely long time. My concern about the term would be lessened if APS were proposing a significantly-smaller, cost-based PPA that was part of a portfolio that included a wider use of competitive purchases as contemplated in the Rule. In addition, I believe that any term renewals should require Commission approval.

Q. Please identify the pricing features to which you object.

A.

A.

One feature that is problematic is the straight fuel cost pass-through from PWCC to APS. While I recognize the need to a adjust for fuel cost changes in a long-term contract, I am concerned that a 100 percent pass-through of actual fuel costs would diminish the incentive of Pinnacle West to operate at least cost. If a long-term agreement is adopted, an alternative approach to this problem, such as a fuel cost adjustment outside a dead band, should be considered.

Another objection I have is the structure of the off-system sales credit.

Under the proposed PPA, APS (and its ratepayers) are obligated to pay the full
(and considerable) fixed costs of the Dedicated Assets, which are dedicated to

meet load that is projected to have a 51 percent load factor. When these assets are not needed to meet APS's load, Pinnacle West is free to use them – clear of fixed cost responsibility – for sales to third parties. In exchange, Pinnacle West returns to APS just 25 percent of the margin on these transactions.

Q.

entitled to the lion's share of the margin on third-party sales, on the order of 75 to 90 percent. The remainder could then flow to Pinnacle West to provide some economic incentive to make these sales. An alternative approach would be to reduce the allocation of fixed costs to APS standard offer customers in proportion to the projected level of Pinnacle West's third-party sales; this allocation would be adjusted every three years to coincide with the fixed-cost adjustment schedule proposed in the PPA.

Finally, I have not verified whether the methodology and calculations used by APS to derive the fixed cost charges in the proposed PPA are reasonable. APS considers the plant-by-plant cost components to be confidential, and it has not been made available to me for review. Consequently I cannot support the fixed cost charge approach proposed by APS unless and until I have had the opportunity to conduct such a review. In any case, at a minimum, costs associated with the new West Phoenix and Red Hawk units should be removed from the fixed and variable costs in the proposed PPA.

Is there an approach to a power purchase agreement that you would view as providing a reasonable basis for consideration?

A.	Yes. APS has raised a number of concerns regarding the prudency of
	complying with Rule 1606(B), and has made a case that the public interest would
	best be served by entering into a long-term, cost-based contract with for
	generation resources that utilize a variety of fuels. In my view, once the bidding
	requirement is either reconfirmed or reset by the Commission (at a level
	significantly higher than proposed by APS), it may be prudent to entertain a long-
	term, cost-based power purchase agreement to supply a portion of the remaining
	standard offer generation needs using resources currently in the APS rate base.
	Such an approach would balance the price volatility concerns raised by APS with
	the need to ensure that an appropriate share of the generation needed for standard
	offer service is acquired through competitive bid.
Direct	access issues
Q.	Does the APS request for a variance attempt to change any aspect of direct
	access service?
A.	No, it does not. The APS request for a variance is fundamentally

Q.

A.

Q.

No, it does not. The APS request for a variance is fundamentally concerned with the procurement of generation resources for standard offer service. In contrast, the rights of retail customers to take direct access service lie entirely outside the scope of the APS request.

Should any changes to the Competition Rules or settlement agreements pertaining to direct access service be contemplated as part of the Commission's consideration of APS's variances request?

No. In hearing, and potentially acting on, the APS request, I strongly recommend that the Commission not take any action that would negatively impact

- the rights of customers to take direct access service. Moreover, should the

 Commission approve any version of an APS power purchase contract, it should be

 made clear that such contract does not give rise to any new stranded cost claims,

 as all stranded cost claims have been permanently resolved in the APS Settlement

 Agreement.
- 6 Q. Does this conclude your direct testimony?
- 7 A. Yes, it does.

KEVIN C. HIGGINS

Principal, Energy Strategies, L.L.C. 39 W. Market St., Suite 200, Salt Lake City, UT 84101 (801) 355-4365

Vitae

PROFESSIONAL EXPERIENCE

<u>Principal</u>, Energy Strategies, L.L.C., Salt Lake City, Utah, January 2000 to present. Responsible for energy-related economic and policy analysis, regulatory intervention, and strategic negotiation on behalf of industrial, commercial, and public sector interests. Previously <u>Senior Associate</u>, February 1995 to December 1999.

Adjunct Instructor in Economics, Westminster College, Salt Lake City, Utah, September 1981 to May 1982; September 1987 to May 1995. Taught in the economics and M.B.A. programs. Awarded Adjunct Professor of the Year, Gore School of Business, 1990-91.

Chief of Staff to the Chairman, Salt Lake County Board of Commissioners, Salt Lake City, Utah, January 1991 to January 1995. Senior executive responsibility for all matters of county government, including formulation and execution of public policy, delivery of approximately 140 government services, budget adoption and fiscal management (over \$300 million), strategic planning, coordination with elected officials, and communication with consultants and media.

Assistant Director, Utah Energy Office, Utah Department of Natural Resources, Salt Lake City, Utah, August 1985 to January 1991. Directed the agency's resource development section, which provided energy policy analysis to the Governor, implemented state energy development policy, coordinated state energy data collection and dissemination, and managed energy technology demonstration programs. Position responsibilities included policy formulation and implementation, design and administration of energy technology demonstration programs, strategic management of the agency's interventions before the Utah Public Service Commission, budget preparation, and staff development. Supervised a staff of economists, engineers, and policy analysts, and served as lead economist on selected projects.

<u>Utility Economist</u>, Utah Energy Office, January 1985 to August 1985. Provided policy and economic analysis pertaining to energy conservation and resource development, with an emphasis on utility issues. Testified before the state Public Service Commission as an expert witness in cases related to the above.

Acting Assistant Director, Utah Energy Office, June 1984 to January 1985. Same responsibilities as Assistant Director identified above.

<u>Research Economist</u>, Utah Energy Office, October 1983 to June 1984. Provided economic analysis pertaining to renewable energy resource development and utility issues. Experience includes preparation of testimony, development of strategy, and appearance as an expert witness for the Energy Office before the Utah PSC.

Operations Research Assistant, Corporate Modeling and Operations Research Department, Utah Power and Light Company, Salt Lake City, Utah, May 1983 to September 1983. Primary area of responsibility: designing and conducting energy load forecasts.

<u>Instructor in Economics</u>, University of Utah, Salt Lake City, Utah, January 1982 to April 1983. Taught intermediate microeconomics, principles of macroeconomics, and economics as a social science.

<u>Teacher</u>, Vernon-Verona-Sherrill School District, Verona, New York, September 1976 to June 1978.

EDUCATION

Ph.D. Candidate, Economics, University of Utah (coursework and exams completed, 1981).

Fields of Specialization: Public Finance, Urban and Regional Economics, Economic Development, International Economics, History of Economic Doctrines.

Bachelor of Science, Education, State University of New York at Plattsburgh, 1976 (cum laude).

Danish International Studies Program, University of Copenhagen, 1975.

SCHOLARSHIPS AND FELLOWSHIPS

University Research Fellow, University of Utah, Salt Lake City, Utah 1982 to 1983. Research Fellow, Institute of Human Resources Management, University of Utah, 1980 to 1982. Teaching Fellow, Economics Department, University of Utah, 1978 to 1980. New York State Regents Scholar, 1972 to 1976.

EXPERT TESTIMONY

"In the Matter of Savannah Electric & Power Company's 2001 Rate Case," Georgia Public Service Commission, Docket No. 14618-U. Direct testimony submitted March 15, 2002.

"Nevada Power Company's 2001 Deferred Energy Case," Public Utilities Commission of Nevada, PUCN 01-11029. Direct testimony submitted February 7, 2002. Cross examined February 21, 2002.

"2001 Puget Sound Energy Interim Rate Case," Washington Utilities and Transportation Commission, Docket Nos. UE-011570 and UE-011571. Direct testimony submitted January 30, 2002. Cross examined February 20, 2002.

"In the Matter of Georgia Power Company's 2001 Rate Case," Georgia Public Service Commission, Docket No. 1400-U. Direct testimony submitted October 12, 2001. Cross examined October 24, 2001.

"In the Matter of the Application of PacifiCorp for Approval of Its Proposed Electric Rate Schedules and Electric Service Regulations," Utah Public Service Commission, Docket No. 01-35-01. Direct testimony submitted June 15, 2001. Rebuttal testimony submitted August 31, 2001.

"In the Matter of Portland General Electric Company's Revised Tariff Schedules for Electric Service in Oregon, Advice 00-14," Public Utility Commission of Oregon, Docket No. UE-115. Direct testimony submitted February 20, 2001. Rebuttal testimony submitted May 4, 2001. Joint testimony regarding stipulation submitted July 27, 2001.

"In the Matter of the Application of APS Energy Services, Inc. for Declaratory Order or Waiver of the Electric Competition Rules," Arizona Corporation Commission, Docket No.E-01933A-00-0486. Direct testimony submitted July 24, 2000.

"In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges," Utah Public Service Commission, Docket No. 99-057-20. Direct testimony submitted April 19, 2000. Rebuttal testimony submitted May 24, 2000. Surrebuttal testimony submitted May 31, 2000. Cross examined June 6 & 8, 2000.

"In the Matter of the Application of Columbus Southern Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues," Public Utility Commission of Ohio, Case No. 99-1729-EL-ETP; "In the Matter of the Application of Ohio Power Company for Approval of Electric Transition Plan and Application for Receipt of

Transition Revenues," Public Utility Commission of Ohio, Case No. 99-1730-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected May 2, 2000.

"In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues," Public Utility Commission of Ohio, Case No. 99-1212-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected April 11, 2000.

"2000 Pricing Process," Salt River Project Board of Directors, oral comments provided March 6, 2000 and April 10, 2000.

"Tucson Electric Power Company vs. Cyprus Sierrita Corporation," Arizona Corporation Commission, Docket No. E-000001-99-0243. Direct testimony submitted October 25, 1999. Cross examined November 4, 1999.

"Application of Hildale City and Intermountain Municipal Gas Association for an Order Granting Access for Transportation of Interstate Natural Gas over the Pipelines of Questar Gas Company for Hildale, Utah," Utah Public Service Commission, Docket No. 98-057-01. Rebuttal testimony submitted August 30, 1999.

"In the Matter of the Application by Arizona Electric Power Cooperative, Inc. for Approval of Its Filing as to Regulatory Assets and Transition Revenues," Arizona Corporation Commission, Docket No. E-01773A-98-0470. Direct testimony submitted July 30, 1999. Cross examined February 28, 2000.

"In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery," Arizona Corporation Commission, Docket No. E-01933A-98-0471; "In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01933A-97-0772; "In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Docket No. RE-00000C-94-0165. Direct testimony submitted June 30, 1999. Rebuttal testimony submitted August 6, 1999. Cross examined August 11-13, 1999.

"In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery," Arizona Corporation Commission, Docket No. E-01345A-98-0473; "In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01345A-97-0773; "In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Docket No. RE-00000C-94-0165. Direct testimony submitted June 4, 1999. Rebuttal testimony submitted July 12, 1999. Cross examined July 14, 1999.

"In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery," Arizona Corporation Commission, Docket No. E-01933A-98-0471; "In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01933A-97-0772; "In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery," Docket No. E-01345A-98-0473; "In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01345A-97-0773; "In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Docket No. RE-00000C-94-0165. Direct testimony submitted November 30, 1998.

"Hearings on Pricing," Salt River Project Board of Directors, written and oral comments provided November 9, 1998.

"Hearings on Customer Choice," Salt River Project Board of Directors, written and oral comments provided June 22, 1998; June 29, 1998; July 9, 1998; August 7, 1998; and August 14, 1998.

"In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Arizona Corporation Commission, Docket No. U-0000-94-165. Direct and rebuttal testimony filed January 21, 1998. Second rebuttal testimony filed February 4, 1998. Cross examined February 25, 1998.

"In the Matter of Consolidated Edison Company of New York, Inc.'s Plans for (1) Electric Rate/Restructuring Pursuant to Opinion No. 96-12; and (2) the Formation of a Holding Company Pursuant to PSL, Sections 70, 108, and 110, and Certain Related Transactions," New York Public Service Commission, Case 96-E-0897. Direct testimony filed April 9, 1997. Cross examined May 5, 1997.

"In the Matter of the Petition of Sunnyside Cogeneration Associates for Enforcement of Contract Provisions," Utah Public Service Commission, Docket No. 96-2018-01. Direct testimony submitted July 8, 1996.

"Questar Pipeline Company," Federal Energy Regulatory Commission, Docket No. RP95-407. Direct testimony prepared, but withheld subject to settlement. Settlement approved July 1, 1996.

"In the Matter of Arizona Public Service Company's Rate Reduction Agreement," Arizona Corporation Commission, Docket No. U-1345-95-491. Direct testimony prepared, but withheld consequent to issue resolution. Agreement approved April 18, 1996.

"In the Matter of the Application of PacifiCorp, dba Pacific Power & Light Company, for Approval of Revised Tariff Schedules and an Alternative Form of Regulation Plan," Wyoming Public Service Commission, Docket No. 2000-ER-95-99. Direct testimony submitted April 8, 1996.

"In the Matter of the Application of Mountain Fuel Supply Company for an Increase in Rates and Charges," Utah Public Service Commission, Case No. 95-057-02. Direct testimony submitted June 19, 1995. Rebuttal testimony submitted July 25, 1995. Surrebuttal testimony submitted August 1995.

"In the Matter of the Investigation of the Reasonableness of the Rates and Tariffs of Mountain Fuel Supply Company," Utah Public Service Commission, Case No. 89-057-15. Direct testimony submitted July 1990. Surrebuttal testimony submitted August 1990.

"In the Matter of the Review of the Rates of Utah Power and Light Company pursuant to The Order in Case No. 87-035-27," Utah Public Service Commission, Case No. 89-035-10. Rebuttal testimony submitted November 15, 1989. Cross examined December 1, 1989 (rate schedule changes for state facilities).

"In the Matter of the Application of Utah Power & Light Company and PC/UP&L Merging Corp. (to be renamed PacifiCorp) for an Order Authorizing the Merger of Utah Power & Light Company and PacifiCorp into PC/UP&L Merging Corp. and Authorizing the Issuance of Securities, Adoption of Tariffs, and Transfer of Certificates of Public Convenience and Necessity and Authorities in Connection Therewith," Utah Public Service Commission, Case No. 87-035-27; Direct testimony submitted April 11, 1988. Cross examined May 12, 1988 (economic impact of UP&L merger with PacifiCorp).

"In the Matter of the Application of Mountain Fuel Supply Company for Approval of Interruptible Industrial Transportation Rates," Utah Public Service Commission, Case No. 86-057-07. Direct testimony submitted January 15, 1988. Cross examined March 30, 1988.

"In the Matter of the Application of Utah Power and Light Company for an Order Approving a Power Purchase Agreement," Utah Public Service Commission, Case No. 87-035-18. Oral testimony delivered July 8, 1987.

"Cogeneration: Small Power Production," Federal Energy Regulatory Commission, Docket No. RM87-12-000. Statement delivered March 27, 1987, on behalf of State of Utah, in San Francisco.

"In the Matter of the Investigation of Rates for Backup, Maintenance, Supplementary, and Standby Power for Utah Power and Light Company," Utah Public Service Commission, Case No.

86-035-13. Direct testimony submitted January 5, 1987. Case settled by stipulation approved August 1987.

"In the Matter of the Application of Sunnyside Cogeneration Associates for Approval of the Cogeneration Power Purchase Agreement," Utah Public Service Commission, Case No. 86-2018-01. Rebuttal testimony submitted July 16, 1986. Cross examined July 17, 1986.

"In the Matter of the Investigation of Demand-Side Alternatives to Capacity Expansion for Electric Utilities," Utah Public Service Commission, Case No. 84-999-20. Direct testimony submitted June 17, 1985. Rebuttal testimony submitted July 29, 1985. Cross examined August 19, 1985.

"In the Matter of the Implementation of Rules Governing Cogeneration and Small Power Production in Utah," Utah Public Service Commission, Case No. 80-999-06, pp. 1293-1318. Direct testimony submitted January 13, 1984 (avoided costs), May 9, 1986 (security for levelized contracts) and November 17, 1986 (avoided costs); cross-examined February 29, 1984 (avoided costs), April 11, 1985 (standard form contracts), May 22-23, 1986 (security for levelized contracts) and December 16-17, 1986 (avoided costs).

OTHER RELATED ACTIVITY

Board of Directors, ex-officio, Desert STAR RTO, September 1999 to February 2002.

Advisory Committee, Desert STAR RTO, September 1999 to February 2002. Acting Chairman, October 2000 to February 2002.

Board of Directors, Arizona Independent Scheduling Administrator Association, October 1998 to present.

Acting Chairman, Operating Committee, Arizona Independent Scheduling Administrator Association, October 1998 to June 1999.

Member, Desert Star ISO Investigation Working Groups: Operations, Pricing, and Governance, April 1997 to present. Legal & Negotiating Committee, April 1999 to December 1999.

Participant, Independent System Operator and Spot Market Working Group, Arizona Corporation Commission, April 1997 to September 1997.

Participant, Unbundled Services and Standard Offer Working Group, Arizona Corporation Commission, April 1997 to October 1997.

Participant, Customer Selection Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Stranded Cost Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Electric System Reliability & Safety Working Group, Arizona Corporation Commission, November 1996 to present.

Consultant to business customers, "In the Matter of Competition in the Provision of Electric Services Throughout the State of Arizona," Arizona Corporation Commission, Docket No. U-0000-94-165. Preparation of comments and participation in staff workshops. Rule on retail electric competition adopted December 23, 1996.

Chairman, Salt Palace Renovation and Expansion Committee, Salt Lake County/State of Utah/Salt Lake City, multi-government entity responsible for implementation of planning, design, finance, and construction of an \$85 million renovation of the Salt Palace Convention Center, Salt Lake City, Utah, May 1991 to December 1994.

State of Utah Representative, Committee on Regional Electric Power Cooperation, a joint effort of the Western Interstate Energy Board and the Western Conference of Public Service Commissioners, January 1987 to December 1990.

Member, Utah Governor's Economic Coordinating Committee, January 1987 to December 1990.

Chairman, Standard Contract Task Force, established by Utah Public Service Commission to address contractual problems relating to qualifying facility sales under PURPA, March 1986 to December 1990.

Chairman, Load Management and Energy Conservation Task Force, Utah Public Service Commission, August 1985 to December 1990.

Alternate delegate for Utah, Western Interstate Energy Board, Denver, Colorado, August 1985 to December 1990.

Articles Editor, Economic Forum, September 1980 to August 1981.

PROPOSED GENERATION IN ARIZONA

9	10-00-00-00-00-00-00-00-00-00-00-00-00-0	Calthness	Big Sandy Phase 1	CC:	
wer	30 fb.4	Pake	Anington Valley	2 %	
=	Arri 67	Service Control	Shira Re et #2	不喜	
-	20 w/#	Энтасте Wes.	Redhawk #	7 F	
Ŧ	Jun-02	эрүү жокто	Rednawkin	530	
au.	36-unit	- CL CK CK	4: 2: 3: 3: 3:	280	
Ann	141m-02	ă C.	SUNGRADES Freelyy, #1	OT ASA	
-		Was in		: 5	
Q	Orfine	PunWes.	7 Phoens	î ĝ	
0	athle.	* c	volen Buelov) j i	
0	Onless		44 18 69	. B	
Û	Ontee	. Hones		N 35	
Status	Operation Date Onton	Sentiment of Community of Community of the Community of C	20,500 (10,00)		

Cate	gory of Project Status	Total	2001	2002	2003	2004	2005	2006	2002
9	Commercial Operation	08.8,	1,830	1,830	1830	1830	088';	058,1	1.8380
1	Under Construction	6,170		3,380	071 8	6,170	9,170	6,170	3.170
	Regulatory Approval Received	\$ 220			1.640	3,745	5.070	5,690	6.220
	Application Under Review	0097			520	090':	1,600	0091	0.000
1 2 2 2	Application Filed								
5	Announced	3.020		:	220	520	520	929	3,020
9	Suspended or Demed Approval	3.320		900	0261	7,500	3.100	3 100	3.320
-	Subject	22,160	0830	5,710	12.600	15,825	18.290	18,910	22,160

495	Aggregated Categories		2001	2002	2003	2004	2005	2006	2007
·	Contraercial Operation	1.830	1.830	1,830	1.830	0881	1.830	1,830	1,830
Tus previous	Under Construction	3,000	1 830	5.210	8,000	8.000	8.000	9,000	8,000
Tus previous	Requistory Approval Received	11.220	1.830	5.210	0.640	(1.745	13.070	13,690	14,229
hus previous	Apple	15.820	0.830	5.210	10,160	12,805	14.670	15.290	15,620
Shorward sore	The state of the s	15.820	1,830	5.210	10 180	12,805	14,670	15,290	CS8 53
Showerd safe	Announces	18,840	1,830	5,210	10.680	13,325	15, 190	15,810	0183.
Plus previous	Suspended in Demed Approval	09: 22	1,830	6.710	12.600	15,825	062.81	18.910	264.87

(3.320)

(3,100)

(3,100)

(1,920)

1.830

Lesy Suspended/Denled

Sources (Saurces) Sarah Sarah (Panimesea) (Sainoma Energy Continismo)

9	Jun-04	Reliant	Desert Basin #	Ö	580
	Jun-04	ŒÞ	Ε	Fossi	380
	10m-0a	а. ш	Ę	F0851	385
	Jun-04	Gla Bend Power Partners LC	Gira Bend S	30	e. Vi n:
	Jan-04	Southwestern Power Group II	Sowie #1	12. C)	200
8	Dec 03	Çailhness	Big Sandy Phase 2	: SS	220
9	Sep-03	Southwestern Cailmess Power Group II	Tollec Phase 1	8	1200
	March 1977	Harouanala Generabno omban, LLC	Harquanale	×	
3	24.00	v/eilton Mohawk District	v/Jeliton- latonawe	Ċ	0.00
ភេ	300 MW	cutietied AZ	Pigning* (Type	71.	Š
	60	Duke	-anna-		
	Jun-03	å	Arthagtor Taiter		¥:
		PanWest Du	W Phoenix Arfingtor Plass 3	35	
		Mesunile (L.C. Pinwes) Du	Gesquite Power - W. Phoenix - Arfingtyr- Plass 2 - 45	30 20 20 20	
	Jun-03	Pands Nessonie LLC Punviest Du	Gita River #4 Mesquite Power 19/4 Phoenix Arthogon Gita River #4	8 29 20 20 20 20	

540

Walter W. Meek Arizona Utility Investors Assoc. 2100 N. Central Avenue, #210 Phoenix, AZ 85004

RICK GILIAM ERIC C. GUIDRY Land & Water Fund of the Rockies 2260 Baseline Road, #200 Boulder, CO 80302

TERRY FROTHUN Arizona State AFL-CIO 5818 N. 7th Street, #200 Phoenix, AZ 85014-5811

NORMAN J. FURUTA Department of the Navy 900 Commodore Drive, Bldg. 107 San Bruno, CA 94066-5006

BARBARA S. BUSH Coalition for Responsible Energy Education 315 W. Rivera Drive Tempe, AZ 85252

SAM DEFRAW (Attn. Code 001)
Rate Intervention Division
Naval Facilities Engineering Command
Building 212, 4th Floor
901M Street
Washington, DC 20374-5018

RICK LAVIS Arizona Cotton Growers Assoc. 4139 East Broadway Road Phoenix, AZ 85040

STEVE BRITTLE Don=T Waste Arizona, Inc. 6205 South 12th Street Phoenix, AZ 85040

Columbus Electric Cooperative, Inc. P. O. Box 631 Deming, NM 88031

Continental Divide Electric Coop. P. O. Box 1087 Grants, NM 87020 Dixie Escalante Rural Electric Assoc. CR Box 95 Beryl, UT 84714

Garkane Power Association, Inc. P. O. Box 790 Richfield, UT 84701

Arizona Dept. of Commerce Energy Office 3800 North Central Ave., 12th Floor Phoenix, AZ 85012

CHRISTOPHER J. EMGE Arizona Community Action Assoc. 2627 N. 3rd Street, #2 Phoenix, AZ 85005

Tucson Electric Power Co. Legal Dept. - DB203 220 W. 6th Street P. O. Box 711 Tucson, AZ 85702-0711

A.B. Baardson, President Mountain Country Cogeneration, Inc. 6463 N. Desert Breeze Court Tucson, AZ. 85750

JESSICA YOULE PAB300 Salt River Project P. O. Box 52025 Phoenix, AZ 85072-2025

JOE EICHELBERGER Magma Copper Company P. O. Box 37 Superior, AZ 85273

Craig Marks Citizens Utitlity Company 2901 N. Central Avenue, Suite 1660 Phoenix, Arizona 85012-2736

Barry Huddleston Destec Energy PO Box 4411 Houston, Texas 77210-4411 Steve Montgomery Johnson Controls 2032 West 4th Street Tempe, Arizona 85281

Terry Ross Center for Energy & Economic Development PO Box 288 Franktown, CO 80116-0288

Clara Peterson AARP HC 31, Box 977 Happy Jack, Arizona 86024

Jim Driscoll Arizona Citizen Action 5160 E. Bellevue Street, Apt. 101 Tucson, Arizona 85712-4828

Larry McGraw USDA-RUS 3266 Weeping Willow Rio Rancho, New Mexico 87124

William Baker Electrical District No. 6 PO Box 16450 Phoenix, Arizona 85011

John Jay List General Counsel National Rural Utilities Cooperative Finance Corp. 2201 Cooperative Way Herndon, Virginia 21071

Robert Julian PPG 1500 Merrell Lane Belgrade, Montana 59714

C. Webb Crockett Jay L. Sharpiro Fennemore Craig PC 3003 N. Central Avenue, Suite 2600 Phoenix, AZ. 85012-2913

Robert S. Lynch 340 East Palm Lane, Suite 140 Phoenix Arizona 850044529 K.R. Saline K.R. Saline & Associates Consulting Engineers 160 North Pasadena, Suite 101 Mesa, AZ 85201-6764

Carl Robert Aron Executive Vice President & COO ITRON Inc. 2818 N. Sullivan Road Spokane Washington 99216

Douglas Nelson Douglas C. Nelson PC 7000 N. 16th Street, Suite 120-307 Phoenix, AZ 85020-5547

Lawrence V. Robertson Jr. Munger Chadwick, PLC 333 North Wilmot, Suite 300 Tucson, AZ 85711-2634

Albert Sterman Arizona Consumers Council 2849 East 8th Street Tucson, AZ 85716

Michael Grant
Gallagher & Kennedy
2575 East Camelback Rd.
Phoenix, AZ 85016-9225

Suzanne Dallimore Antitrust Unit Chief Department of Law Buliding Arizona Attoney General's Office 1275 W. Washington Street Phoenix, AZ 85007

Vinnie Hunt City of Tucson Department of Operations 4004 South Park Avenue, Building 2 Tucson, AZ 85714

Elizabeth S. Firkins Internation Brotherhood of Electrical Workers LU #1116 750 S. Tucson Blvd. Tucson, AZ 85716-5698 Carl Dabelstein 2211 E. Edna Avenue Phoenix, AZ. 85022

Roderick G. McDougal City of Phoenix Attn: Jesse Sears 200 W. Washington St. Suite 1300 Phoenix AZ 75003-1611

William J. Murphy City of Phoenix 200 W. Washington St. Suite 1400 Phoenix, AZ 85003-1611

Russell E. Jones Waterfall Economidis Caldwell Hanshaw & Villamana PC 5210 E. Williams Circle, Suite 800 Tucson, AZ 85711

Christopher Hitchcock Hitchcock & Hicks PO Box 87 Bisbee, AZ 85603-0087

Andrew Bettwy Debra Jacobsen Southwest Gas Corporation 5241 Spring Mountain Rd. Las Vegas, NV 89150-0001

Barbara R. Goldberg Office of the City Attorney 3939 Civic Center Blvd. Las Vegas, NV 85251

Bradford A Borman Pacificorp 201 S. Main, Ste. 2000 SLC, UT 84140

Timothy M. Hogan Arizona Center for Law in the Public Interest 202 E. McDowell Rd. Suite 153 Phoenix, AZ. 85004

Marcia Weeks 18970 N. 116th Lane Surprise, AZ 85374 John T. Travers William H. Nau 272 Market Square, Ste 2724 Lake Forest, Ill 60045

Timothy Michael Toy Winthrop Stimson Putnam & Roberts One Battery Park Plaza NYC, NY 10004-1490

Raymond S Heyman Michael W. Patten Roshka Heyman & Dewulf, PLC 400 E. Van Buren, Suite 800 Phoenix, AZ 85004

Chuck Miessner Nev Southwest LLC PO Box 711, MS-DA308 Tucson, Arizona 85702-0711

Billie Dean AVIDD PO Box 97 Marana, AZ 85652-0987

Raymond B. Wuslich Winston & Strawn 1400 L. Street, NW Washington DC 20005

Steven C. Gross Porter Simon 40200 Truckee Airport Rd. Truckee, CA 96161-3307

Donald R. Allen John P. Coyle Duncan & Allen 1575 Eye Street, NW Suite 300 Washington, DC 20005

Ward Camp Phaser Advanced Metering Services 400 Gold SW, Ste. 1200 Albuquerque, NM 87102

Theresa Drake Idaho Power Company PO Box 70 Boise, ID 83707 Libby Brydolf California Energy Markets Newsletter 2419 Bancroft Street San Diego, CA 92104

Paul W. Taylor RW Beck 2201 E. Camelback Rd. Suite 115-B Phoenix, AZ 85016-3433

James P. Barlett 5333 N. 7th Street, Suite B-215 Phoenix, AZ 85014

Jay Moyes Moyes Storey 3003 N. Central Ave., Suite 1250 Phoenix, AZ. 85012

Stephen L. Teichler Stephanie A. Conaghan Duane Morris & Heckscher, LLP 1667 K Street NW, Suite 700 Washington DC 20006

Kathy T. Puckett Shell Oil Company 200 N. Dairy Ashford Houston, TX 77079

Andrew N. Chau Shell Energy Services Co. LLC 1221 Lamar, Suite 1000 Houston, TX 77010

Peter Q. Nyce Jr.
Department of the Army
JALS-RS Suite 713
901 N. Stuart Street
Arlington, Virginia 22203-1837

Michelle Ahlmer Arizona Retailers Association 224 W. 2nd Street Mesa, AZ 85201

Dan Neidlinger Neidlinger & Associates 3020 N. 17th Drive Phoenix, AZ 85015 Chuck Garcia PNM, Law Department Alvarado Square MS 0806 Albuquerque, NM 87158

Sanford J. Asman 570 Vinington Ct. Dunwoody, GA 30350-5710

Patricia Cooper AEPCO/SSWEPCO 1000 S. Highway 80 Benson, AZ 85602

Steve Segal Leboeuf, Lamb, Greene, & Macrae 633 17th Street Suite 2000 Denver, CO 80202-3620

Holly E. Chastain Schlumberger Resource Management Services Inc. 5430 Metric Place Norcross, GA 30092-2550

Leslie Lawner Enron Corp. 712 N. Lea Roswell, NM 88201

Alan Watts Southern California Public Power Agency 529 Hilda Ct. Anaheim, CA 92806

Frederick M. Bloom Commonwealth Energy Corporation 15991 Red Hill Ave. Suite 201 Tustin, CA 92780

Margaret McConnell Maricopa Community College 2411 W. 14th Street Tempe, AZ 85281-6942

Chris King Utility.Com Inc. 828 San Pablo Avenue, Suite 115 Albany, CA 94706 Brian Soth Firstpoint Services Inc. 1001 SW 5th Ave. Suite 500 Portland, Oregon 92704

Ian Calkins Phoenix Chamber of Commerce 201 N. Central Ave. 27th Floor Phoenix, AZ 85073

Kevin McSpadden Milbank Tweed Hadley & Mccloy, LLP 601 S. Figueroa. 30th Floor LA, CA 90017

MC Arendes, Jr. C3 Communications Inc. 2600 Via Fortuna, Suite 500 Austin Texas 78746

Patrick J. Sanderson Arizona Independent Scheduling Administrator Association PO Box 6277 Phoenix, AZ 85005-6277

Roger K. Ferland Quarles & Brady Striech Lang LLP Renaissance One Two North Central Avenue Phoenix, AZ 85004-2391

Charles T. Stevens Arizonians for Electric Choice & Competition 245 W. Roosevelt Phoenix, AZ 85003

Mark Sirois Arizona Community Action Assoc. 2627 N. Third Street, Suite 2 Phoenix, AZ 85003

Jeffery Guldner Thomas L. Mumaw Snell & Wilmner 400 E. Van Buren One Arizona Center Phoenix, AZ 85004-0001

Steven J. Duffy Ridge & IsaacsonPC 3101 N. Central Ave. Suite 740 Phoenix, AZ 85012 Greg Patterson 5432 E. Avalon Phoenix, AZ 85018

John Wallace Grand Canyon State Electric Co-op 120 North 44th Street, Suite 100 Phoenix, AZ 85034-1822

Steven Lavigne
Duke Energy
4 Triad Center, Suite 1000
SLC, UT 84180

Dennis L. Delaney K.R. Saline & Associates 160 North Pasadena, Suite 101 Mesa, AZ 85201-6764

Michael Kurtz Borhm, Kurtz, & Lowry 36 E. Seventh Street, Suite 2110 Cincinnati, Ohio 45202

David Berry PO Box 1064 Scottsdale, AZ 85252

William P. Inman Dept. of Revenue 1600 W. Monroe, Rm 911 Phoenix, AZ 85020-5270

Jana Van Ness APS Mail Station 9905 PO Box 53999 Phoenix, AZ 85072-3999

David Couture TEP 4350 E. Irvington Rd. Tucson, AZ 85714

Jana Brandt SRP Mail Station PAB211 PO Box 52025 Phoenix, AZ 85072-2025 Randall H. Warner Jones Skelton & Hochuli PLC 2901 N. Central Avenue, Suite 800 Phoenix, AZ 85012

John A. Lasota Jr. Miller Lasota & Peters, PLC 5225 N. Central Ave., Suite 235 Phoenix, AZ 85012

Christopher Kempley, Chief Counsel Arizona Corporation Commission 1200 W. Washington Street Phoenix, AZ 85007

Arizona Reporting Service Inc. 2627 N. Third Street, Suite three Phoenix, AZ 85004-1104

Michael A. Curtis Martinez & Curtis PC 2712 North 7th Street Phoenix, AZ 85006

Lindy Funkhouser Scott S. Wakefield RUCO 2828 N. Central Ave. Suite 1200 Phoenix, AZ 85004